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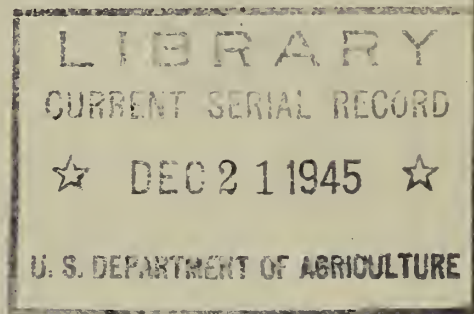
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FARM CREDIT ADMINISTRATION
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.

EFFECT OF THE WAR
ON COUNTY FARM BUREAU
COOPERATIVE ASSOCIATIONS
IN INDIANA



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The Cooperative Research and Service Division conducts research studies and service activities relating to problems of management, organization, policies, merchandising, sales, costs, competition, and membership arising in connection with the cooperative marketing of agricultural products and the cooperative purchase of farm supplies and services; publishes the results of such studies; confers and advises with officials of farmers' cooperative associations; and cooperates with educational agencies, cooperative associations, and others in the dissemination of information relating to cooperative principles and practices.

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EFFECT OF THE WAR ON COUNTY FARM BUREAU COOPERATIVE ASSOCIATIONS IN INDIANA

By
Jane L. Searce, Agricultural Economist

PURPOSE AND SCOPE OF STUDY

Experiences of 70 Indiana county farm bureau cooperative associations in Indiana during the 5 years 1939-43 were studied by the Cooperative Research and Service Division to determine the effect of the war years on their growth and operations. The 70 associations are believed to be broadly representative of the farmers' cooperatives operating in the State.

These county-wide purchasing and marketing associations make up the larger part of 86 associations federated in the Indiana Farm Bureau Cooperative Associations, Inc., and offer widely diversified services to the farmers. The study is based on the annual audits of the 70 associations, since comparable information for each of the 5 years was available for only this number.

The central organization maintains warehouses and offices in Indianapolis for the purpose of providing the county associations with farm supplies and essential centralized services. Together, the 86 county associations distribute supplies to approximately 100,000 patrons, 95 percent of whom are farmers.¹

The county farm bureau associations, organized on a somewhat common pattern, differ appreciably in their individual operations. Some limit their services to the cooperative purchasing of petroleum and general farm supplies. Others extend cooperative purchasing further and render marketing services. The facilities of a typical association include a general warehouse and one or more bulk petroleum plants. Many associations also operate grain elevators, petroleum service stations, and similar facilities.²

Since Indiana farmers carry on diversified farming activities, various types of farm supplies are required. The United States Census of

NOTE. - Appreciation is expressed to the Indiana Farm Bureau Cooperative Association which provided the information required for this study. The author is indebted to Dr. Joseph G. Knapp, Principal Agricultural Economist, Farm Credit Administration, for his helpful suggestions and counsel in the preparation of the study, and to Etta C. Emmons for assistance in the compilation of the data.

¹Knapp, J. G. Handbook on Major Regional Farm Supply Purchasing Cooperatives, 1942 and 1943, F.C.A. Misc. Report 73, 53 pp. (processed) 1944. (See p. 19.)

²Further information on these county associations will be found in Francis, G. M. Cooperative Purchasing by Indiana Farmers, F.C.A. Bul. 38, 84 pp. 1939.

FIG. 1

LOCATION OF THE HEADQUARTERS OF 70 INDIANA COUNTY FARM BUREAU COOPERATIVE ASSOCIATIONS SELECTED FOR THE STUDY



These county associations make up the largest part of the membership of the Indiana Farm Bureau Cooperative Association, which consists of 86 county associations. Headquarters of these associations are usually in the county seats.

Agriculture for 1940 reported expenditures by Indiana farmers for the following types of farm supplies, as -

Feed.....	\$21,522,171
Implements and machinery.....	19,821,377
Building materials.....	11,750,376
Gasoline, distillage, kerosene, and oil.....	9,933,964
Commercial fertilizer and liming materials.....	6,730,810

On April 1 of that year 184,549 farms, representing 86 percent of the land area of the State, were reported in operation. During the period covered by this study the average net income per farm in Indiana (as shown by the following figures from the Bureau of Agricultural Economics, United States Department of Agriculture) increased from \$725 in 1939 to \$2,415 in 1943, or 234 percent:

Year:	<u>Income</u>	<u>Index (1939 = 100)</u>
1939.....	\$725	100
1940.....	767	106
1941.....	1,215	168
1942.....	1,916	265
1943.....	2,415	334

While there is some variation in the fiscal-year closing of the books of these associations, it is not of material significance in this study which is primarily concerned with year-to-year changes. Most of the associations close their books on November 30 or on December 31. Others close at different times so that the records can be audited more conveniently by the State association.

The terminology used in this analysis is that employed by the State association. "Sales," when used in relation to farm supplies, refers to purchases by patrons, while "cost of sales" refers to the cost of such purchases. "Service income" represents largely the revenue from services performed by the association for its members, and "gross operating income" refers to the margin or difference between the purchases by patrons and the cost of these purchases plus the revenue from services. "Net operating savings" and "total net savings" are margins derived from actual operations involved in serving the patrons and from total business transactions, respectively.

The following analysis shows the changes in the 70 associations as a group during the 5 years 1939-43. It makes no attempt to explain the variations between associations. Headquarters of the associations surveyed are shown in figure 1.

CHANGES IN BUSINESS VOLUME

The total volume of business of the 70 associations examined in this study increased from \$11,316,157 in 1939 to \$25,711,996 in 1943, or 127 percent.

Records of itemized transactions were available for only 63 associations. For this number, total volume rose from \$10,331,634 in 1939 to \$23,261,794 in 1943, representing an increase of 125 percent. Sales of farm supplies increased from \$8,794,938 in 1939 to \$17,473,562 in 1943, or 99 percent. Volume of farm products marketed rose from \$1,536,696 in 1939 to \$5,788,232 in 1943, or 277 percent. Sales of petroleum products increased 38 percent compared with a 140 percent increase for general farm supplies. (Tables 1 and 2.)

Table 1. - Value of farm supply and marketing sales by 63 Indiana farm bureau cooperative associations for the fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
	<i>Dollars</i>				
Petroleum products.....	3,552,761	3,520,425	3,904,505	4,611,633	4,887,813
General farm supplies...	5,242,177	5,797,160	7,596,537	10,146,616	12,585,749
Total farm supplies	8,794,938	9,317,585	11,501,042	14,758,249	17,473,562
Farm products marketed..	1,536,696	1,756,763	2,568,577	3,152,741	5,788,232
Total sales.....	10,331,634	11,074,348	14,069,619	17,910,990	23,261,794

Increases in the dollar sales of the various items largely represent increases in the volume of the different supplies handled, but also reflect a rising trend in prices. The volume of certain commodities was restricted by wartime shortages and regulations.

Table 2. - Index numbers of the total value of farm supply and marketing sales of 63 Indiana farm bureau cooperative associations for fiscal years ended 1940-43

ITEM	INDEX NUMBERS (1939=100)			
	1940	1941	1942	1943
Petroleum products.....	99	110	130	138
General farm supplies.....	111	145	194	240
Total farm supplies...	106	131	168	199
Farm products marketed.....	114	167	205	377
Total sales.....	107	136	173	225

In 1939, petroleum products made up 34 percent of the total volume; general farm supplies, 51 percent; and farm products marketed, 15 percent. In 1943, petroleum products made up 21 percent of the total volume; general farm supplies, 54 percent; and farm products marketed, 25 percent. Figure 2 shows the relative importance of the three groups of sales in millions of dollars.

The volumes of the 70 associations ranged from \$26,970 to \$595,315 in 1939, and from \$51,646 to \$1,302,529 in 1943. The largest number of associations in each of the first 3 years handled volumes ranging from \$100,000 to \$199,999; in 1942 from \$200,000 to \$299,999; and in 1943, \$400,000 or more. The ranges in volume for the first 3 years were similar. The largest volume increases came in 1942 as shown in table 3.

FIG.2

SALES OF GENERAL FARM SUPPLIES,
PETROLEUM PRODUCTS AND FARM PRODUCTS
FOR 63 INDIANA FARM BUREAU COOPERATIVE
ASSOCIATIONS FOR THE FISCAL YEARS ENDED
1939 to 1943

Million Dollars

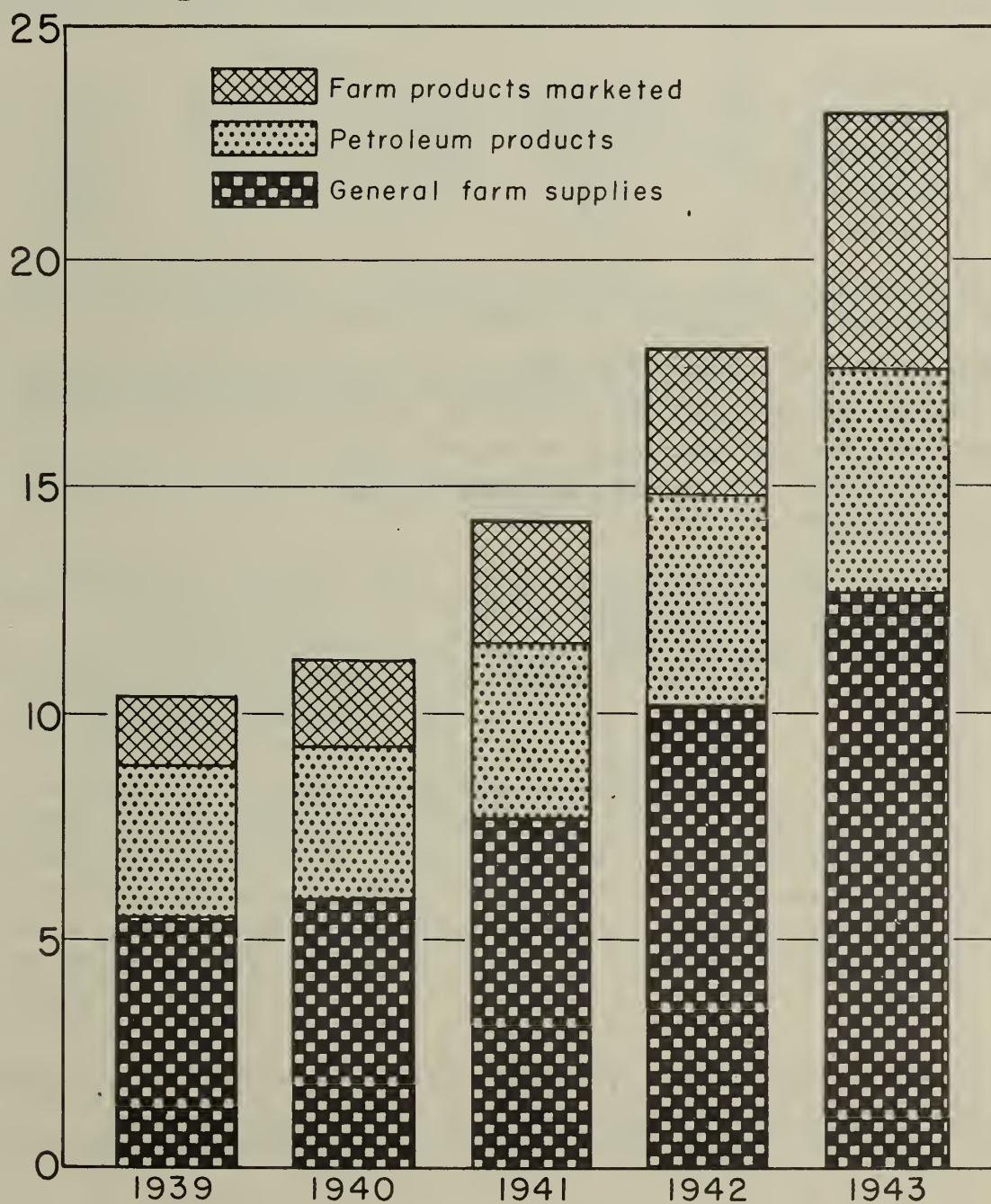


Table 3. - Number and percentage of Indiana farm bureau cooperative associations handling indicated volume of sales for fiscal year ended 1939-43

SALES VOLUME GROUP	1939	1940	1941	1942	1943
<i>Number of Associations</i>					
Less than \$100,000....	19	16	13	7	2
\$100,000 - \$199,999...	34	33	24	15	11
\$200,000 - \$299,999...	12	14	19	24	19
\$300,000 - \$399,999...	3	4	9	10	15
\$400,000 or more.....	2	3	5	14	23
Total.....	70	70	70	70	70
<i>Percent</i>					
Less than \$100,000....	27.1	22.9	18.6	10.0	2.9
\$100,000 - \$199,999...	48.6	47.1	34.3	21.4	15.7
\$200,000 - \$299,999...	17.1	20.0	27.1	34.3	27.1
\$300,000 - \$399,999...	4.3	5.7	12.9	14.3	21.4
\$400,000 or more.....	2.9	4.3	7.1	20.0	32.9
Total.....	100.0	100.0	100.0	100.0	100.0

By the end of the 5 years, 90 percent of the associations had increased their sales by 50 percent or more, 64 percent by 100 percent or more, and 17 percent by 200 percent or more. Only one association showed a decrease in volume. The sales of general farm supplies largely accounted for these increases.

Table 4. - Increase in volume of sales in 1943 over 1939, for 70 Indiana farm bureau cooperative associations, by volume groups

SALES VOLUME IN 1939	NUMBER OF ASSOCIATIONS IN GROUP	PERCENTAGE OF ASSOCIATIONS THAT INCREASED SALES -			
		LESS THAN 50 PERCENT	50 PERCENT OR MORE	100 PERCENT OR MORE	200 PERCENT OR MORE
Less than \$100,000....	19	15.8	84.2	63.2	21.0
\$100,000 - \$199,999...	34	5.9	94.1	64.7	20.6
\$200,000 - \$299,999...	12	^a 16.7	83.3	66.7	8.3
\$300,000 - \$399,999...	3	-	100.0	66.7	-
\$400,000 or more.....	2	-	100.0	50.0	-
Total.....	70	10.0	90.0	64.3	17.1

^aThe volume of business of 1 of the 2 associations in this group decreased.

PETROLEUM PRODUCTS

For the 63 associations having comparable data, petroleum products made up approximately 40 percent of total sales of farm supplies in 1939. This percentage gradually decreased to 28 percent in 1943. On the other

hand, there was an increase in the amount of petroleum sales from 3.6 million dollars in 1939 to 4.9 million dollars in 1943, or 38 percent (table 5).

Gasoline was the most important item, making up approximately 70 percent of petroleum products for each of the 5 years. The amount of gasoline sales rose from 2.5 million dollars in 1939 to 3.5 million dollars in 1943, or 40 percent.

Kerosene was the next important single item, but the sales declined both in amount and in percentage of the total of petroleum products. The amount decreased from \$439,448 in 1939 to \$400,596 in 1943, or by 9 percent even though it was larger in 1943 than in the years 1940, 1941, and 1942.

The combined sales of tractor fuel and distillate made the third largest amount for each of the first 2 years, and the second largest for each of the last 3 years. The combined sales went from \$264,453 in 1939 to \$467,947 in 1943.

Oil made up approximately 7.5 percent of petroleum products for each year, but the volume increased from \$257,808 in 1939 to \$364,649 in 1943. Grease made up a little more than 1 percent of the total value of petroleum products sold for each of the 5 years.

GENERAL FARM SUPPLIES

The dollar volume of general farm supplies distributed by the 63 associations rose from \$5,242,177 in 1939 to \$12,585,749 in 1943. Feed and flour made up 40 percent of the total in 1939 and 50 percent in 1943. The sales value of feed and flour amounted to \$6,317,924 in 1943 and was 3 times that of 1939. (Tables 6 and 7.)

Fertilizer contributed the second largest amount of general farm supplies for each year. Sales increased from \$735,766 in 1939 to \$1,621,891 in 1943. Although this was more than twice as much as in 1939, fertilizer sales declined from 14 percent in 1939 to 12.9 percent in 1943 when expressed as a percentage of the total sales of general farm supplies. The high increase in the dollar volume of feed and flour accounted for this percentage decrease.

Coal was the third largest item and made up approximately 9 percent of general farm supplies for each of the 5 years. However, the dollar volume increased from \$455,086 in 1939 to \$1,048,932 in 1943, or by 130 percent.

Of the items with large volumes next to feed and flour, building supplies showed the largest percentage of volume increase in 5 years. The dollar volume rose from \$390,070 in 1939 to \$1,108,330 in 1943, or 184 percent. On the other hand they showed very little increase when expressed as a percentage of general farm supplies.

Table 5. - Sales value of petroleum products handled by 63 Indiana farm bureau cooperative associations for the fiscal years ended 1939-43

PETROLEUM PRODUCT	1939		1940		1941		1942		1943	
	SALES VALUE	PERCENT-AGE OF TOTAL PETROLEUM PRODUCTS	SALES VALUE	PERCENT-AGE OF TOTAL PETROLEUM PRODUCTS	SALES VALUE	PERCENT-AGE OF TOTAL PETROLEUM PRODUCTS	SALES VALUE	PERCENT-AGE OF TOTAL PETROLEUM PRODUCTS	SALES VALUE	PERCENT-AGE OF TOTAL PETROLEUM PRODUCTS
Gasoline.....	\$2,533,709	71.3	\$2,558,635	72.7	\$2,753,163	70.5	\$3,237,605	70.2	\$3,539,450	72.4
Kerosene.....	439,448	12.4	378,953	10.8	346,708	8.9	366,227	7.9	400,596	8.2
Tractor fuel and distillate.....	264,453	7.4	256,414	7.2	393,076	10.1	507,484	11.0	467,947	9.6
Oil.....	257,808	7.3	256,534	7.3	320,174	8.2	384,881	8.4	364,649	7.5
Grease.....	38,400	1.1	38,679	1.1	48,790	1.2	60,611	1.3	63,597	1.3
Miscellaneous ^a	18,943	0.5	31,210	0.9	42,594	1.1	54,825	1.2	51,574	1.0
Total.....	\$3,552,761	100.0	\$3,520,425	100.0	\$3,904,505	100.0	\$4,611,633	100.0	\$4,887,813	100.0

^aIncludes a small amount of some of the itemized supplies, other petroleum, and a small amount of tires, tubes, and batteries.

Table 6. - Sales value of general farm supplies handled by 63 Indiana farm bureau cooperative associations for the fiscal years ended 1939-43

ITEM	1939		1940		1941		1942		1943	
	SALES VALUE	PERCENT- AGE OF TOTAL SUPPLIES	SALES VALUE	PERCENT- AGE OF TOTAL SUPPLIES	SALES VALUE	PERCENT- AGE OF TOTAL SUPPLIES	SALES VALUE	PERCENT- AGE OF TOTAL SUPPLIES	SALES VALUE	PERCENT- AGE OF TOTAL SUPPLIES
Feed and flour ^a	\$2, 108, 855	40.2	\$2, 405, 249	41.5	\$3, 238, 695	42.7	\$4, 565, 658	45.0	\$6, 317, 924	50.2
Fertilizer.....	735, 766	14.0	835, 599	14.4	1, 019, 646	13.4	1, 289, 486	12.7	1, 621, 891	12.9
Coal.....	455, 086	8.7	584, 601	10.1	708, 247	9.3	961, 219	9.5	1, 048, 932	8.3
Building supplies.....	390, 070	7.4	411, 082	7.1	550, 240	7.2	683, 204	6.7	1, 108, 330	8.8
Seed.....	375, 157	7.2	399, 095	6.9	404, 220	5.3	550, 739	5.4	774, 265	6.2
Machinery and implements.....	340, 463	6.5	371, 844	6.4	564, 821	7.4	812, 989	8.0	435, 793	3.5
Fence and posts.....	249, 753	4.8	287, 907	5.0	547, 339	7.2	705, 906	7.0	680, 120	5.4
Farm modernization and electrical equipment.....	245, 205	4.8	185, 006	3.2	201, 771	2.7	174, 720	1.7	130, 657	1.0
Twine and rope.....	32, 177	0.6	48, 827	0.8	51, 413	0.7	49, 178	0.5	43, 084	0.3
Insecticides and spray.....	18, 560	0.3	41, 594	0.7	53, 332	0.7	85, 381	0.9	86, 640	0.7
Tires, tubes, and batteries.....	17, 189	0.3	30, 978	0.5	41, 462	0.6	23, 633	0.2	37, 140	0.3
Miscellaneous.....	273, 896	5.2	195, 378	3.4	215, 351	2.8	244, 503	2.4	300, 973	2.4
Total.....	\$5, 242, 177	100.0	\$5, 797, 160	100.0	\$7, 596, 537	100.0	\$10, 146, 616	100.0	\$12, 585, 749	100.0

^a Includes a small amount of grain.

Table 7. - Index numbers of the sales value of general farm supplies purchased through 63 Indiana farm bureau cooperative associations for fiscal years ended 1940-43

ITEM	INDEX NUMBERS (1939=100)			
	1940	1941	1942	1943
Feed and flour ^a	114	154	216	300
Fertilizer.....	114	139	175	220
Coal.....	128	156	211	230
Building supplies.....	105	141	175	284
Seed.....	106	108	147	206
Machinery and implements.....	109	166	239	128
Fence and posts.....	115	219	283	272
Farm modernization and electrical equipment.....	75	82	71	53
Twine and rope.....	152	160	153	134
Insecticides and spray.....	224	287	240	467
Tires, tubes, and batteries.....	180	241	137	216
Miscellaneous.....	71	79	89	110
Total.....	111	145	194	240

^aIncludes a small amount of grain.

Next in order of dollar volume were: seed, machinery, and implements, fence and posts, and farm modernization and electrical equipment. Seed was from 5 to 7 percent of general farm supplies during the 5 years, but the dollar volume increase in 1943 over 1939 was 106 percent. Machinery and implements varied from 4 to 8 percent of general farm supplies during the period. The largest dollar volume increase over 1939 was 139 percent in 1942 with only 28 percent in 1943. Fence and posts ranged from 5 to 7 percent of supplies during the period, but showed the largest dollar volume increases over 1939 in the last 2 years, 183 percent in 1942, and 172 percent in 1943.

Due to war priorities, dollar volume of farm modernization and electrical equipment fell off, and by 1943 it was 47 percent lower than in 1939. This equipment was the only item of general farm supplies listed in table 6 that declined in dollar volume as well as in percentage of total supplies. As a percentage of farm supplies it went from 5 percent in 1939 to 1 percent in 1943.

Dollar volumes and index numbers of the remaining items are shown in tables 6 and 7. Practically all spray material was tabulated with insecticides. In a few instances, when it was identified as paint spray made from petroleum products it was included in miscellaneous petroleum products. Otherwise, there was no way to identify and separate the different kinds of spray. Also, a small amount of tires, tubes, and batteries was included in miscellaneous petroleum products.

FARM PRODUCTS MARKETING

The dollar volume of farm products marketed made up 15 percent of total business in 1939, 16 percent in 1940, 18 percent in 1941, 1942, and 1943.

Table 8. - Distribution of Indiana farm bureau cooperative associations according to the farm product handled for the fiscal years ended 1939-43^a

COMMODITY	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Wheat.....	18	22	25	28	30
Corn.....	11	15	18	21	24
Other grains.....	11	15	17	18	21
Soybeans.....	11	12	15	18	21
Beans.....	2	3	2	3	4
Livestock and wool.....	3	2	1	3	1
Farm produce.....	6	6	5	5	5
Total associations handling farm products.....	21	25	28	31	35

^aRecords available for 63 associations. This table does not include those associations among the 63 that handled farm commodities on a commission basis.

Table 8 shows the distribution, by commodities, of the associations that performed marketing services. Thirty-five of the 63 associations handled farm products on a purchase-and-sales basis in 1943 against 21 associations in 1939. Other associations handled farm products on a commission basis.

There was a gradual increase in the number of associations that handled grain and soybeans. Wheat was handled by more associations in each of the 5 years than any one farm product.

The dollar volume of farm products gradually increased from \$1,536,696 in 1939 to \$5,788,232 in 1943. Wheat, corn, and farm produce made up 78 percent of total products in 1939, 81 percent in 1940, and 73 percent in 1941; wheat, corn, and soybeans made up 74 percent of the total in 1942 and 80 percent in 1943. In the last year, the dollar volume of soybeans made up 43 percent of that of total farm products and was almost equal to the combined volume of wheat and corn. (Table 9.)

The increases or decreases in dollar volume for each commodity have been gradual from 1939 to 1943 except in a few instances. In the 5 years, the dollar volume of wheat increased 168 percent, corn 143 percent, other grains 965 percent, soybeans 1,428 percent, and beans 334 percent. On the other hand, livestock and wool declined 95.6 percent and farm produce 5 percent.

CHANGES IN OPERATING CONDITION

AVERAGE OPERATING STATEMENT

The year-to-year changes in the operating condition of the county associations are shown by the average operating statement of the 70 associations (table 10).

Table 9. - Sales value of farm products marketed by Indiana farm bureau cooperative associations for the fiscal years ended 1939-43^a

COMMODITY	1939		1940		1941		1942		1943	
	SALES VALUE	PERCENT- AGE OF TOTAL SALES	SALES VALUE	PERCENT- AGE OF TOTAL SALES	SALES VALUE	PERCENT- AGE OF TOTAL SALES	SALES VALUE	PERCENT- AGE OF TOTAL SALES	SALES VALUE	PERCENT- AGE OF TOTAL SALES
Wheat.....	^b \$415,917	27.1	^b \$418,951	23.8	^b \$824,374	32.1	\$543,038	17.2	^b \$1,114,079	19.2
Corn.....	^b 429,750	28.0	^b 670,221	38.1	^b 668,894	26.1	949,570	30.1	^b 1,042,974	18.0
Other grain.....	^c 46,717	3.0	^c 96,313	5.5	^c 166,913	6.5	206,070	6.6	^c 497,698	8.6
Soybeans.....	162,726	10.6	158,197	7.9	401,494	15.6	858,462	27.2	^c 2,485,772	43.0
Beans.....	70,682	4.6	34,471	2.0	47,066	1.8	176,466	5.6	306,580	5.3
Livestock and wool.....	54,355	3.5	59,162	3.4	69,083	2.7	11,938	0.4	2,389	(d)
Farm produce.....	356,549	23.2	339,448	19.3	390,753	15.2	407,197	12.9	338,740	5.9
Total.....	\$1,536,696	100.0	\$1,756,763	100.0	\$2,568,577	100.0	\$3,152,741	100.0	\$5,788,232	100.0

^aSee table 8 for number of associations. Records available for 63 associations. This table does not include those associations among the 63 that sold on a commission basis.

^bA small amount included in other grains.

^cIncludes a small amount of wheat and corn for two associations in 1939, one in 1940, two in 1941, and three in 1943 (included in count for wheat and corn in table 8.)

^dLess than one-tenth of one percent.

Table 10. - Average operating statement of 70 Indiana farm bureau cooperative associations for fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
<i>Dollars</i>					
Sales.....	161,659	173,785	219,969	283,742	367,314
Cost of sales.....	133,985	145,590	186,164	240,126	316,191
Gross margin on sales.....	27,674	28,195	33,805	43,616	51,123
Service income.....	2,464	2,663	3,485	4,577	6,582
Gross operating income.....	30,138	30,858	37,290	48,193	57,705
Expenses:					
Warehouse selling and delivery.....	19,635	20,637	23,379	28,099	33,431
General and administrative.....	5,654	6,327	7,192	8,301	10,163
Total expenses.....	25,289	26,964	30,571	36,400	43,594
Net operating savings.....	4,849	3,894	6,719	11,793	14,111
Other income (less other deductions) ^a	392	1,375	2,462	5,708	8,767
Total net savings.....	5,241	5,269	9,181	17,501	22,878

^aIncludes such items as interest, dividends, rent, some patronage refunds, less adjustments and refunds from other associations.

Table 11. - Average operating statement of 70 Indiana farm bureau cooperative associations, with items expressed in percentage of sales, fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
<i>Percentage of Sales</i>					
Sales.....	100.0	100.0	100.0	100.0	100.0
Cost of sales.....	82.9	83.8	84.6	84.6	86.1
Gross margin on sales.....	17.1	16.2	15.4	15.4	13.9
Service income.....	1.5	1.5	1.6	1.6	1.8
Gross operating income.....	18.6	17.7	17.0	17.0	15.7
Expenses:					
Warehouse selling and delivery.....	12.1	11.9	10.6	9.9	9.1
General and administrative.....	3.5	3.6	3.3	2.9	2.8
Total expenses.....	15.6	15.5	13.9	12.8	11.9
Total operating savings.....	3.0	2.2	3.1	4.2	3.8
Other income (less other deductions) ^a2	.8	1.1	2.0	2.4
Total net savings.....	3.2	3.0	4.2	6.2	6.2

^aIncludes such items as interest, dividends, rent, some patronage refunds from other associations, less adjustments and refunds on commodities.

Average sales rose from \$161,659 in 1939 to \$367,314 in 1943. Cost of sales were \$133,985 in 1939 and \$316,191 in 1943, allowing a gross margin of \$27,674 in 1939 and \$51,123 in 1943. These figures indicate 127 percent increase in sales in the 5 years, 136 percent increase in the cost of sales, and 85 percent in the gross margin on sales.

Average service income increased from \$2,464 in 1939 to \$6,582 in 1943, or 167 percent. This added to the increase in gross margin on sales resulted in a rise in average gross operating income of from \$30,138 in 1939 to \$57,705 in 1943, or 91 percent.

Expenses averaged \$25,289 in 1939 and \$43,594 in 1943, an increase of 72 percent. With a very large increase in nonoperating income average net savings rose from \$5,241 in 1939 to \$22,878 in 1943, or 337 percent.

Table 11 shows the average operating statement with items expressed in percentage of sales.

Since the year-to-year increase in sales was less than that in cost of sales - which meant smaller margins were taken - the cost of sales showed a small increase when expressed as a percentage of sales and gross margin showed a decrease. Service income as a percentage of sales also showed an increase, but not in sufficient amount to bring about an increase in gross operating income which was 18.6 percent of sales in 1939 and declined to 15.7 percent in 1943.

It is of interest that the rate of increase in the proportion of cost of sales to sales was roughly compensated by the rate of decrease in the percentage of expenses. The control over expenses and the large increase in the percentage of nonoperating income resulted in an increase in net savings from 3.2 percent of sales in 1939 to 6.2 percent in 1943.

Figure 3 shows the year-to-year changes in total gross income, operating expenses, and net savings of the 70 associations.

GROSS INCOME

Gross income from operations includes gross margin on sales and income from services such as grinding, weighing, cleaning, paint spraying, trucking, hatchery earnings, repairing, and commissions on the handling of grain and other commodities. Income from services contributed 8 percent of gross income from operations in 1939; 9 percent in 1940, 1941, and 1942; and 11 percent in 1943.

In each of the first 2 years covered by the study, 54 associations, or approximately 78 percent, had gross incomes from operations under \$40,000. In 1941 and 1942, 45 associations, or approximately 65 percent, had incomes from operations ranging from \$20,000 to \$59,999; whereas in 1943, 47 associations, or 67 percent, had incomes of \$40,000 or more.

FIG. 3

TOTAL GROSS INCOME, OPERATING EXPENSES
& NET SAVINGS FOR 70 INDIANA FARM BUREAU
ASSOCIATIONS, FOR FISCAL YEARS ENDED
1939 to 1943

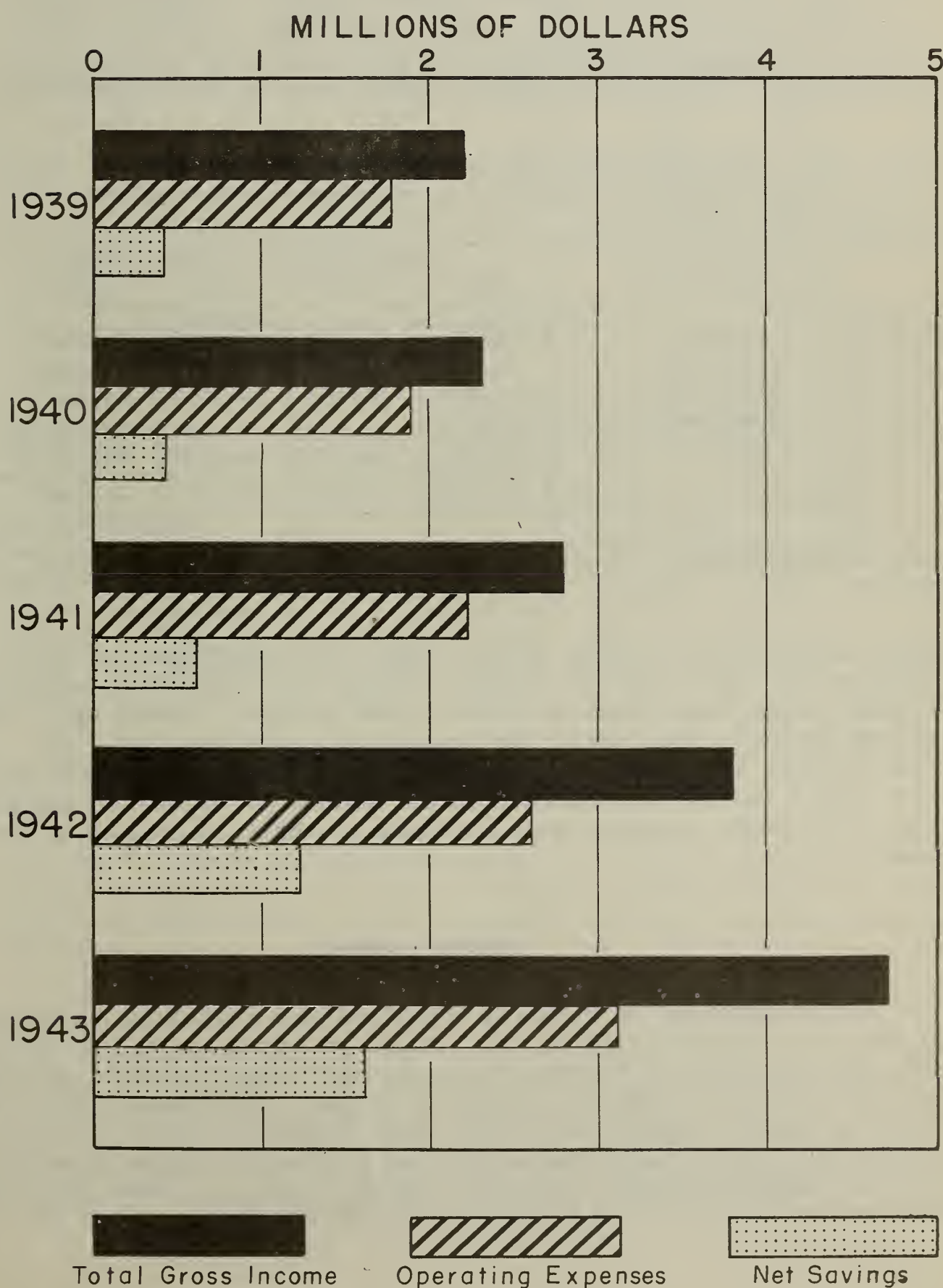


Table 12. - Gross income from operations for 70 Indiana farm bureau cooperative associations for fiscal years ended 1939-43

GROSS INCOME FROM OPERATIONS ^a	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than \$20,000.....	23	21	14	9	6
\$20,000 - \$39,999.....	31	34	30	21	15
\$40,000 - \$59,999.....	12	11	16	24	22
\$60,000 or more.....	4	4	10	16	27
Total.....	70	70	70	70	70

^aIncludes gross margin on sales and income from grinding, weighing, cleaning, garage services, paint spraying, hatchery earnings, trucking, commissions from commodity handling, and other services.

Table 13. - Average gross income from operations for 70 Indiana farm bureau cooperative associations, by sales volume groups, for fiscal years ended 1939-43

SALES VOLUME GROUPS	AVERAGE GROSS INCOME FROM OPERATIONS ^a				
	1939	1940	1941	1942	1943
	<i>Dollars</i>				
Less than \$100,000.....	13,975	13,204	13,232	14,344	12,601
\$100,000 - \$199,999.....	28,814	27,662	29,382	28,599	23,983
\$200,000 - \$299,999.....	41,338	40,822	39,269	42,118	43,071
\$300,000 - \$399,999.....	65,162	56,423	60,045	58,709	56,156
\$400,000 or more.....	86,463	79,588	89,317	89,011	90,847
Total.....	30,138	30,858	37,290	48,193	57,705

^aIncludes gross margin on sales and income from grinding, weighing, cleaning, garage services, paint spraying, hatchery earnings, trucking, commissions from commodity handling, and other services.

Table 13 gives the average gross income from operations for the 70 associations, by sales volume groups. There was some fluctuation in the average income when shown by sales volume groups. Groups under \$200,000 showed some decline, while the largest volume group had a more gradual year-to-year increase. However, further analysis (table 18) will show that gross income from operations per dollar of sales for associations with both large and small sales volumes gradually decreased during the 5 years.

OPERATING EXPENSES

The total expenses of handling supplies and marketing farm products gradually rose each year as the volume of sales increased, but not at the same rate for all volume groups as the larger volumes were handled at a lower rate per dollar of sales. However, the associations handling large or small volumes controlled their expenses to a very large degree during the period under study. The unit rates are shown in table 18 and will be discussed under operating ratios. Table 12 shows the distribution of the associations by income from operations.

Total expenses in 1939 for 29 associations, or 41 percent, were under \$20,000; for 36 associations, or 52 percent, \$20,000 to \$39,999; and for 5 associations, or 7 percent, \$40,000 or more. In 1943 only 10 associations, or 14 percent, had expenses under \$20,000; 23 associations, or 33 percent, had expenses of \$20,000 to \$39,999; and 37 associations, or 53 percent, \$40,000 or more. (Table 14.)

Table 14. - Annual operating expenses of 70 Indiana farm bureau cooperative associations for the fiscal years ended 1939-43

OPERATING EXPENSES	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than \$20,000.....	29	24	19	12	10
\$20,000 - \$39,999.....	36	37	38	34	23
\$40,000 or more.....	5	9	13	24	37
Total.....	70	70	70	70	70
Average per association....	\$25,289	\$26,964	\$30,571	\$36,400	\$43,594

Table 15. - Average amount of operating expenses for 70 Indiana farm bureau cooperative associations by sales volume groups for the fiscal years ended 1939-43

TYPE OF EXPENSE AND SALES VOLUME GROUP	AVERAGE EXPENSES PER ASSOCIATION				
	1939	1940	1941	1942	1943
	<i>Dollars</i>				
Warehouse selling and delivery expenses:					
Less than \$100,000....	9,154	8,569	8,889	8,388	7,904
\$100,000 - \$199,999...	18,640	18,533	19,407	17,079	13,571
\$200,000 - \$299,999...	27,468	27,503	24,018	25,313	24,225
\$300,000 - \$399,999...	47,967	38,745	36,357	32,995	33,773
\$400,000 or more.....	46,612	51,952	54,321	51,041	52,532
All associations.	19,635	20,637	23,379	28,099	33,431
General and administrative expenses:					
Less than \$100,000....	3,005	3,289	3,328	3,721	3,533
\$100,000 - \$199,999...	5,502	6,000	6,407	6,137	5,695
\$200,000 - \$299,999...	8,059	7,581	7,215	7,642	8,569
\$300,000 - \$399,999...	8,327	9,362	10,446	9,401	10,293
\$400,000 or more.....	14,984	16,232	15,063	13,250	14,109
All associations.	5,654	6,327	7,192	8,301	10,163
Total expenses:					
Less than \$100,000....	12,159	11,858	12,217	12,109	11,437
\$100,000 - \$199,999...	24,142	24,533	25,814	23,216	19,266
\$200,000 - \$299,999...	35,527	35,084	31,233	32,955	32,794
\$300,000 - \$399,999...	56,294	48,107	46,803	42,396	44,066
\$400,000 or more.....	61,596	68,184	69,384	64,291	36,641
All associations.	25,289	26,964	30,571	36,400	43,594

Table 15 shows that average total expenses of associations in the 4 lowest sales volume groups were gradually lowered each year, whereas the highest volume group showed increased average expenses. The increase in the last group is due to the number of associations with extremely large volumes that were added year by year to that group.

As will be shown later in the discussion, the expenses per dollar of sales for this group decreased.

From 76 to 79 percent of total expenses during the 5 years was allocated to warehouse selling and delivery, and from 22 to 24 percent was allocated to general and administrative expense. As reflected in average total expenses, average warehouse selling and delivery expenses for all groups under \$400,000 volume showed a year-to-year decrease, whereas the average for the group of \$400,000 or more showed an increase. On the other hand, average general and administrative expenses for the associations with volumes under \$400,000 gradually increased, and for associations of \$400,000 or more decreased after 1940.

NET SAVINGS

Net savings or loss of the 70 associations in 1939 ranged from a loss of \$4,828 to a savings of \$30,831. Year-to-year annual savings increased until in 1943 they ranged from \$2,123 to \$93,294. In the first 3 years, a small percentage of associations operated with losses. Fifty-one percent of the associations closed in 1939 with net savings for the season of \$5,000 or less per association. The average for the 70 associations was \$5,241. The operating results in 1940 were similar to those in 1939. Each of the 3 years 1941-43 showed a substantial increase in savings over the previous year. In 1943, 53 percent of the

Table 16. - Amount of annual net savings or loss of 70 Indiana farm bureau cooperative associations for the fiscal years ended 1939-43

NET SAVINGS OR LOSS	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Net loss.....	5	6	4	-	-
Net savings:					
\$5,000 or less.....	36	35	22	9	5
\$5,001 - \$10,000.....	19	16	19	14	6
\$10,001 - \$15,000.....	6	7	11	11	15
\$15,001 - \$20,000.....	1	5	8	15	7
More than \$20,000.....	3	1	6	21	37
Total.....	70	70	70	70	70
	<i>Dollars</i>				
Range in net savings or loss.....	-4,828 to 30,831	-9,464 to 22,859	-1,074 to 38,925	2,239 to 66,240	2,123 to 93,294
Average per association....	5,241	5,269	9,181	17,501	22,878

associations had net savings of more than \$20,000 per association, and the average for the 70 associations was \$22,878. Table 16 shows the net savings for the 5 years.

When average annual net savings were shown by volume groups, 1939 and 1940 were found to be somewhat similar; whereas, those of 1942 and 1943 were comparable in several respects. (Table 17.) The average net savings for associations in each of the first four volume groups in 1943 were practically twice the size of those in 1939; in the fifth volume group they were increased by less than half. The average for 1943 was slightly more than four times that of 1939, since 33 percent of the associations had sales volumes of \$400,000 or more in 1943. In 1939, 49 percent of the associations had volumes ranging from \$100,000 to \$199,999 (table 31).

Table 17. - Average amount of annual net savings for 70 Indiana farm bureau cooperative associations, by sales volume groups, for fiscal years ended 1939-43

SALES VOLUME	AVERAGE ANNUAL NET SAVINGS PER ASSOCIATION ^a				
	1939	1940	1941	1942	1943
	<i>Dollars</i>				
Less than \$100,000.....	2,007	2,074	1,859	4,358	4,003
\$100,000 - \$199,999.....	5,057	4,494	5,603	9,193	9,534
\$200,000 - \$299,999.....	6,341	7,282	11,793	14,713	16,617
\$300,000 - \$399,999.....	9,708	10,178	16,607	29,960	21,080
\$400,000 or more.....	25,798	^b 14,895	24,394	33,855	37,245
All associations.....	5,241	5,269	9,181	17,501	22,878

^aSee table 3, page 5, for the number of associations in each volume group.

^bThe average is low because 1 of the 3 associations in this group had very low net savings for 1940.

OPERATING RATIOS PER DOLLAR OF SALES

Table 18 shows the amount of gross operating and nonoperating income, expenses, and net savings per dollar of sales, by volume groups.

The average gross operating income per dollar of sales for the 70 associations went from 18.6 cents in 1939 to 15.7 cents in 1943. Higher costs and lower gross margins each year on some commodities accounted for this decrease. Associations with business volumes of less than \$200,000 had higher gross operating income per dollar of sales than did associations with volumes of \$200,000 or more. The first volume group had an average operating income of 19.7 cents per dollar of sales in 1939 which decreased about 1 cent in 1940, 1941, and 1942, and 1.5 cents in 1943. The second group had an average operating income of 17.3 cents per dollar of sales in 1939, which decreased to 15.6 cents in 1943.

Average operating expenses per dollar of sales declined from 15.6 cents in 1939 to 11.9 cents in 1943. Associations with less than \$200,000

Table 18. - Average amount of gross income, expenses, and net savings per dollar of sales, by sales volume groups, for 70 Indiana farm bureau cooperative associations, for fiscal years ended 1939-43

ITEM AND SALES VOLUME GROUP	AVERAGE AMOUNT PER DOLLAR OF SALES				
	1939	1940	1941	1942	1943
	<i>Cents</i>				
Gross income from operations:					
Less than \$200,000.....	19.7	18.8	18.7	18.7	18.2
\$200,000 or more.....	17.3	16.7	16.2	16.7	15.6
Total.....	18.6	17.7	17.0	17.0	15.7
Operating expenses:					
Less than \$200,000.....	16.6	16.7	16.6	15.3	14.8
\$200,000 or more.....	14.4	14.3	12.7	12.4	11.7
Total.....	15.6	15.5	13.9	12.8	11.9
Savings from operations:					
Less than \$200,000.....	3.1	2.1	2.1	3.4	3.4
\$200,000 or more.....	2.9	2.4	3.5	4.3	3.9
Total.....	3.0	2.2	3.1	4.2	3.8
Nonoperating income:					
Less than \$200,000.....	0.2	0.9	1.3	2.5	3.7
\$200,000 or more.....	0.2	0.6	1.0	1.9	2.3
Total.....	0.2	0.8	1.1	2.0	2.4
Total net savings:					
Less than \$200,000.....	3.3	3.0	3.4	5.9	7.1
\$200,000 or more.....	3.1	3.0	4.5	6.2	6.2
Total.....	3.2	3.0	4.2	6.2	6.2

sales volume had average expenses ranging from 16.6 cents per dollar of sales in 1939 to 14.8 cents in 1943. Associations with volumes of \$200,000 or more decreased their expenses from 14.4 cents per dollar in 1939 to 11.7 cents in 1943. The decline in the operating expenses was probably for two reasons: year-to-year increases in volume - since large associations can operate on a smaller expense per dollar of sales than small ones can - and increased efficiency in control of expenses by the majority of the associations.

Furthermore, in table 18, average savings from operations per dollar of sales showed some year-to-year fluctuations. They ranged from 2.2 cents per dollar of sales in 1940 to 4.2 cents in 1942.

In the first volume group average savings from operations rose from 3.1 cents per dollar of sales in 1939 to 3.4 cents in 1943 and in the second group they went from 2.9 cents per dollar in 1939 to 3.9 cents in 1943. Each group showed some year-to-year fluctuations.

As for nonoperating income, associations with volumes less than \$200,000 showed higher income per dollar of sales than did those in the higher

FIG. 4

TOTAL GROSS INCOME, OPERATING EXPENSES
& NET SAVINGS PER DOLLAR OF SALES FOR
70 INDIANA FARM BUREAU ASSOCIATIONS
FOR FISCAL YEAR ENDED, 1939 to 1943

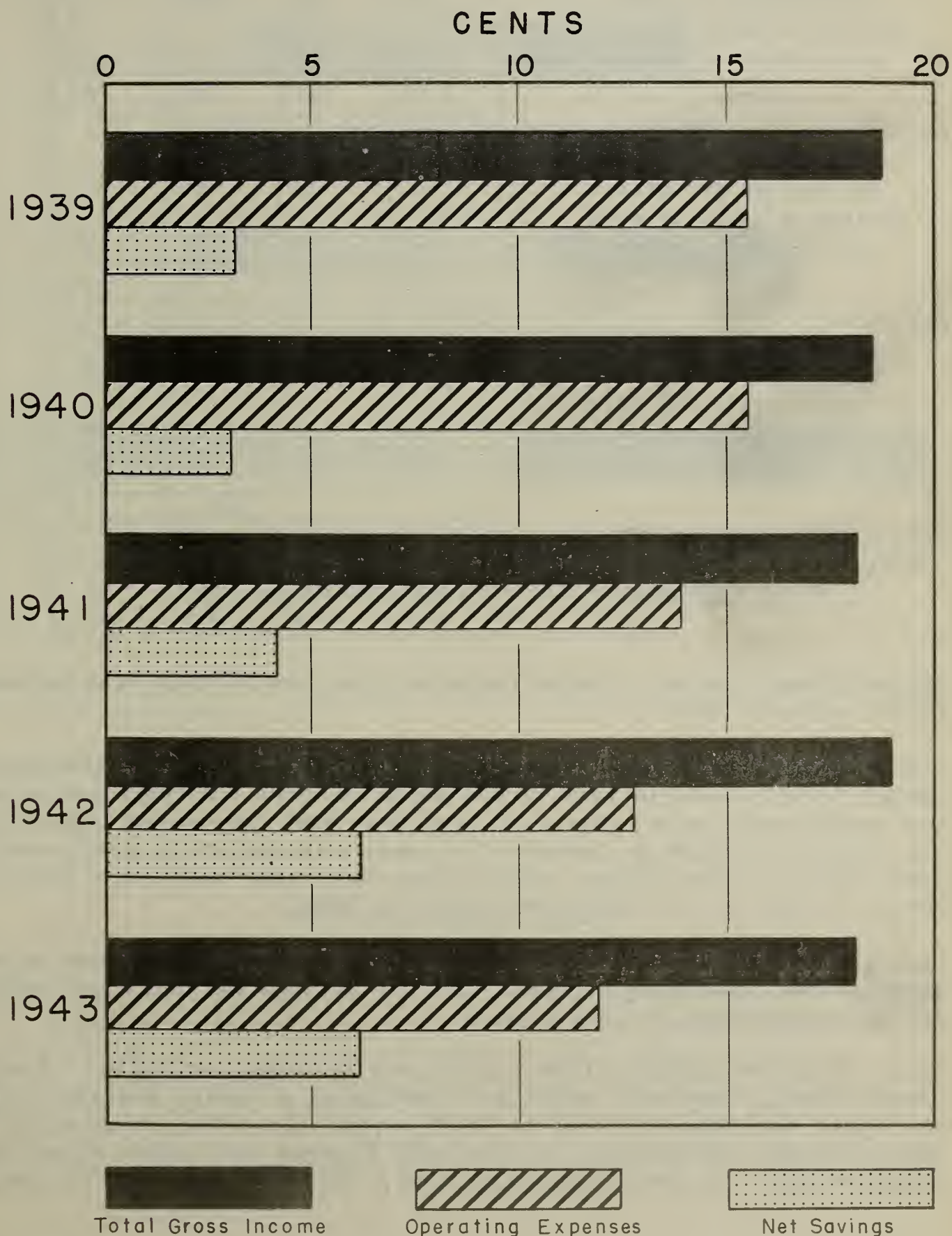


Table 19. - Amount of annual net savings per dollar of sales for 70 Indiana farm bureau cooperative associations, by volume and savings groups, for fiscal years ended 1939-43

VOLUME OF SALES AND NET SAVINGS PER DOLLAR OF SALES	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than \$200,000 volume:					
Savings less than 5 cents per dollar of sales.....	40	38	27	8	3
Savings 5 cents or more per dollar of sales.....	13	11	10	14	10
Total.....	53	49	37	22	13
\$200,000 or more volume:					
Savings less than 5 cents per dollar of sales.....	13	14	17	12	12
Savings 5 cents or more per dollar of sales.....	4	7	16	36	45
Total.....	17	21	33	48	57
All sales:					
Savings less than 5 cents per dollar of sales.....	53	52	44	20	15
Savings 5 cents or more per dollar of sales.....	17	18	26	50	55
Total.....	70	70	70	70	70
	<i>Cents</i>				
Range in net savings per dollar of sales.....	-4.0	-3.0	-2.4	1.6	0.7
	to	to	to	to	to
	8.0	10.4	9.6	10.2	10.7

volume group, with an average income of 0.2 cent in 1939 that increased to 2.4 cents in 1943.

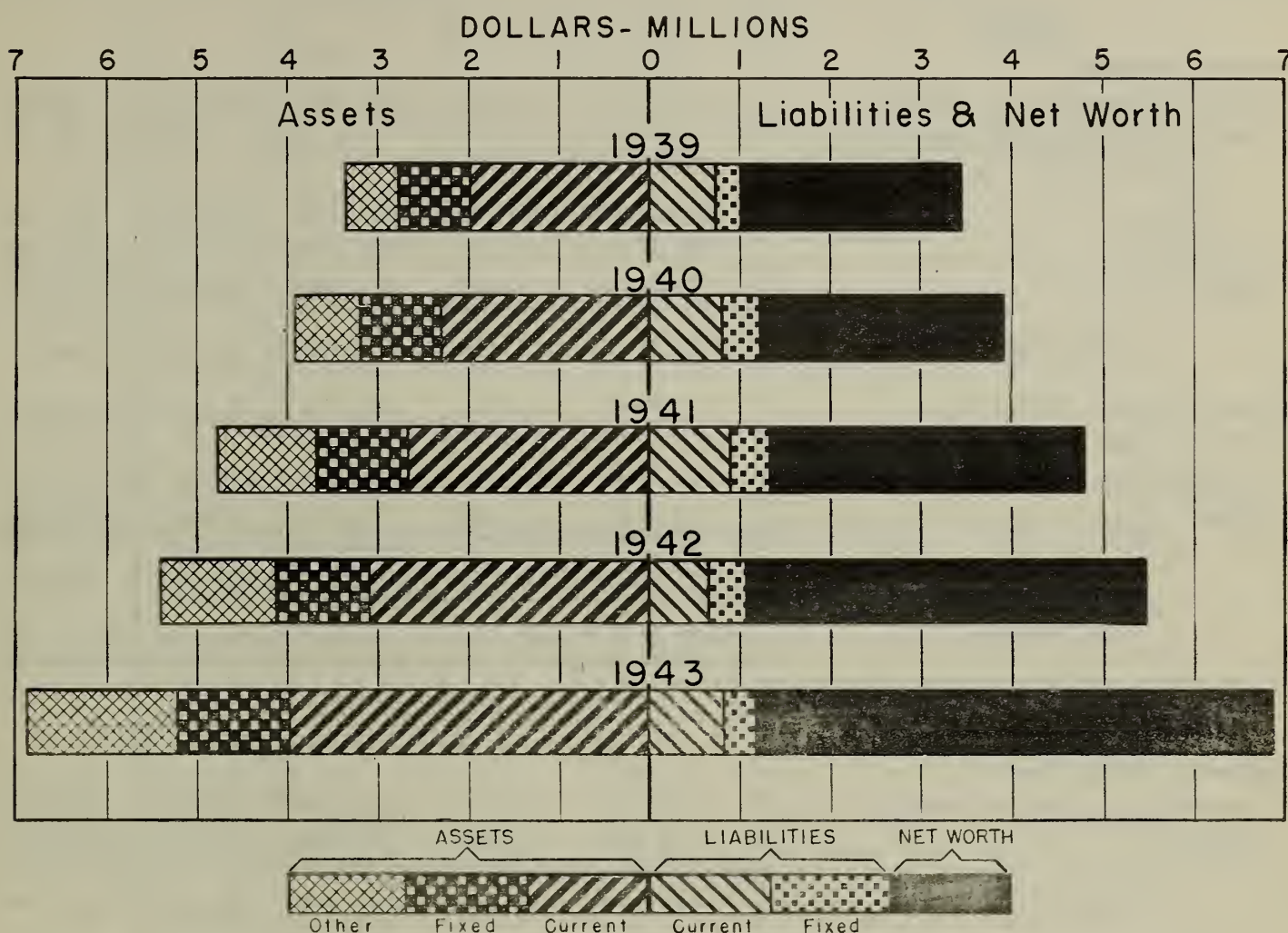
The average net savings per dollar of sales for the 70 associations ranged from 3 cents in 1940 to 6.2 cents in 1943. Average net savings for associations with volumes of less than \$200,000 ranged from 3 cents per dollar of sales in 1940 to 7.1 cents per dollar in 1943, and for associations in the higher volume group the range was from 3 cents per dollar in 1940 to 6.2 cents per dollar in 1943.

Figure 4, based upon the total figures given in table 18, shows average gross income, operating expenses, and net savings per dollar of sales of the 70 associations for the 5 years.

Table 19 shows that in 1939 annual net savings per dollar of sales ranged from a loss of 4 cents to a saving of 8 cents, whereas in 1943 the range was from 0.7 cent to 10.7 cents. In 1939, 53 associations showed annual net savings of less than 5 cents per dollar of sales as compared with 15 associations in 1943, while 17 associations showed

FIG. 5

CONSOLIDATED FINANCIAL STATEMENTS FOR 70 INDIANA FARM BUREAU COOPERATIVE ASSOCIATIONS FOR FISCAL YEARS, 1939 to 1943



annual net savings of 5 cents per dollar of sales as compared with 55 associations in 1943.

In 1939, the largest number of associations fell in the small sales group with average net savings of less than 5 cents per dollar of sales, and in 1943, the largest number fell in the large sales group with average net savings of 5 cents or more per dollar of sales.

CHANGES IN FINANCIAL STATUS

The combined assets of the 70 associations, after allowing for the depreciation on buildings, trucks, and equipment and the loss on bad debts, amounted to \$3,431,736 at the close of the fiscal year ended in 1939 and \$6,845,135 in 1943 an increase of 99 percent. Current assets gradually increased from \$2,004,019 in 1939 to \$3,964,048 in 1943, or 98 percent. The value of fixed assets, after allowing for depreciation, went from \$799,787 in 1939 to \$1,248,037 in 1943, an increase of 56 percent. Other assets showed an increase of 160 percent. (Figure 5 and table 20.)

Table 20. - Consolidated balance sheets of 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
<i>Dollars</i>					
<u>Assets</u>					
Current assets:					
Cash on hand and in bank.....	234,627	284,233	374,678	637,382	781,379
Accounts and notes receivable - less depreciation for bad debts.....	619,222	619,414	595,519	550,453	575,325
Inventory.....	1,074,029	1,249,437	1,592,595	1,703,059	2,353,673
Other ^a	76,141	118,335	128,898	223,908	253,671
Total current assets....	2,004,019	2,271,419	2,691,690	3,114,802	3,964,048
Fixed assets (depreciated).....	799,787	919,642	983,664	1,062,453	1,248,037
Other assets:					
Investments.....	594,968	715,505	1,002,472	1,207,471	1,588,934
Other.....	32,962	37,237	37,015	39,454	44,116
Total other assets.....	627,930	752,742	1,039,487	1,246,925	1,633,050
Total assets.....	3,431,736	3,943,803	4,714,841	5,424,180	6,845,135
<u>Liabilities and net worth</u>					
Current liabilities:					
Accounts and notes payable.....	609,630	744,971	794,389	525,735	683,967
Other.....	59,569	47,702	85,886	97,720	156,802
Total current liabilities	669,199	792,673	880,275	623,455	840,769
Fixed liabilities.....	352,955	412,601	444,234	387,030	268,256
Total liabilities.....	1,022,154	1,205,274	1,324,509	1,010,485	1,109,025
Net worth:					
Capital stock:					
Preferred and common stock outstanding.....	1,513,672	1,732,263	1,999,772	2,534,543	3,339,878
Capital stock credits.....	313,480	313,076	353,543	396,553	454,869
Total capital stock.....	1,827,152	2,045,339	2,353,315	2,931,096	3,794,747
Surplus reserve and undistrib- uted net savings.....	582,430	693,190	1,037,017	1,482,599	1,941,363
Total net worth.....	2,409,582	2,738,529	3,390,332	4,413,695	5,736,110
Total liabilities and net worth.....	3,431,736	3,943,803	4,714,841	5,424,180	6,845,135

^aIncludes such items as refunds receivable, cash advances and deposits, and accounts receivable from other associations.

Table 21. - Average balance sheet of 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

ITEM	AVERAGE PER ASSOCIATION				
	1939	1940	1941	1942	1943
	<i>Dollars</i>				
<u>Assets</u>					
Current assets:					
Cash on hand and in bank.....	3,352	4,060	5,353	9,105	11,162
Accounts and notes receivable - less depreciation for bad debts.....	8,846	8,849	8,508	7,864	8,219
Inventory.....	15,343	17,849	22,751	24,329	33,624
Other ^a	1,088	1,691	1,841	3,199	3,624
Total current assets.....	28,629	32,449	38,453	44,497	56,629
Fixed assets (depreciated).....	11,426	13,138	14,052	15,178	17,829
Other assets:					
Investments.....	8,499	10,221	14,321	17,249	22,699
Other.....	471	532	529	564	630
Total other assets.....	8,970	10,753	14,850	17,813	23,329
Total assets.....	49,025	56,340	67,355	77,488	97,787
<u>Liabilities and net worth</u>					
Current liabilities:					
Accounts and notes payable.....	8,709	10,643	11,349	7,510	9,771
Other.....	851	681	1,227	1,396	2,240
Total current liabilities..	9,560	11,324	12,576	8,906	12,011
Fixed liabilities.....	5,042	5,894	6,346	5,529	3,832
Total liabilities.....	14,602	17,218	18,922	14,435	15,843
Net worth:					
Capital stock:					
Preferred and common stock outstanding.....	21,624	24,747	28,568	36,208	47,713
Capital stock credits.....	4,478	4,472	5,051	5,665	6,498
Total capital stock.....	26,102	29,219	33,619	41,873	54,211
Surplus reserve and undistributed net savings.....	8,321	9,903	14,814	21,180	27,733
Total net worth.....	34,423	39,122	48,433	63,053	81,944
Total liabilities and net worth.....	49,025	56,340	67,355	77,488	97,787

^aIncludes such items as refunds receivable, cash advances and deposits, and accounts receivable from other associations.

Table 22. - Consolidated balance sheet items expressed as percentages of total assets for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
	<i>Percent</i>				
<u>Assets</u>					
Current assets:					
Cash on hand and in bank.....	6.8	7.2	8.0	11.8	11.4
Accounts and notes receivable - less depreciation for bad debts.....	18.1	15.7	12.6	10.1	8.4
Inventory.....	31.3	31.7	33.8	31.4	34.4
Other ^a	2.2	3.0	2.7	4.1	3.7
Total current assets.....	58.4	57.6	57.1	57.4	57.9
Fixed assets (depreciated).....	23.3	23.3	20.9	19.6	18.2
Other assets:					
Investments.....	17.3	18.2	21.2	22.3	23.2
Other.....	1.0	.9	.8	.7	3.7
Total other assets.....	18.3	19.1	22.0	23.0	23.9
Total assets.....	100.0	100.0	100.0	100.0	100.0
<u>Liabilities and net worth</u>					
Current liabilities:					
Accounts and notes payable.....	17.8	18.9	16.9	9.7	10.0
Other.....	1.7	1.2	1.8	1.8	2.3
Total current liabilities..	19.5	20.1	18.7	11.5	12.3
Fixed liabilities.....	10.3	10.5	9.4	7.1	3.9
Total liabilities.....	29.8	30.6	28.1	18.6	16.2
Net worth:					
Capital stock:					
Preferred and common stock outstanding.....	44.1	43.9	42.4	46.8	48.8
Capital stock credits.....	9.1	7.9	7.5	7.3	6.6
Total capital stock.....	53.2	51.8	49.9	54.1	55.4
Surplus reserve and undistrib- uted net savings.....	17.0	17.6	22.0	27.3	28.4
Total net worth.....	70.2	69.4	71.9	81.4	83.8
Total liabilities and net worth.....	100.0	100.0	100.0	100.0	100.0

^aIncludes such items as refunds receivable, cash advances and deposits, and accounts receivable from other associations.

Liabilities showed a very small year-to-year increase. Total liabilities went from \$1,022,154 in 1939 to \$1,109,025 in 1943, an increase of only 8 percent, and current liabilities rose from \$669,199 in 1939 to \$840,769 in 1943, or 24 percent.

Net worth rose from \$2,409,582 in 1939 to \$5,736,110 in 1943 - an increase of 138 percent. In 1939, capital stock made up 76 percent of net worth and undistributed savings made up 24 percent; in 1943 capital stock made up 66 percent, and reserves and undistributed savings, 34 percent. Capital stock showed an increase of 107 percent in the 5 years. Surplus reserve and undistributed savings went up 233 percent. Table 21 shows the average balance of the 70 associations.

When items were expressed as percentages of total assets, current assets remained at approximately 58 percent of the total at the close of each of the 5 years, whereas fixed assets declined from 23.3 percent in 1939 to 18.2 percent in 1943. Investments went from 17.3 percent of the total in 1939 to 23.2 percent in 1943. (Table 22.)

Total liabilities expressed as a percentage of total assets decreased from 29.8 percent in 1939 to 16.2 percent in 1943. Current liabilities went from 19.5 percent in 1939 to 12.3 percent in 1943.

Total net worth rose from 70.2 percent of total assets in 1939 to 83.8 percent in 1943. Capital stock showed a small increase from 53.2 percent to 55.4 percent in the 5 years and surplus reserve and undistributed savings went from 17.0 percent to 28.4 percent.

ASSETS

In relation to total assets, inventory was the largest item of current assets for any 1 year. It increased from 31.3 percent in 1939 to 34.4 percent in 1943. Accounts and notes receivable amounted to 18.1 percent in 1939, but declined to 8.4 percent in 1943. Cash on hand and in the bank was 6.8 percent in 1939 and 11.4 percent in 1943. (Table 22.)

Inventory made up from 54 to 59 percent of current assets at the close of the business seasons during the 5 years. Table 23 shows that in 1939 the largest number of associations had inventories ranging from 40 to 59

Table 23. - Percentage of current assets represented by inventory for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

PERCENTAGE OF CURRENT ASSETS REPRESENTED BY INVENTORY	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than 40 percent.....	14	9	7	8	5
40 - 59 percent.....	29	28	28	30	28
60 percent or more.....	27	33	35	32	37
Total.....	70	70	70	70	70

Table 24. - Closing inventory as a percentage of annual sales for 70 Indiana farm bureau cooperative associations for fiscal years ended 1939-43

INVENTORY AS A PERCENTAGE OF SALES	1939	1940	1941	1942	1943
<i>Number of Associations</i>					
Less than 5 percent.....	8	3	4	3	2
5 - 9.9 percent.....	30	26	25	48	37
10 - 14.9 percent.....	29	37	33	18	25
15 percent or more.....	3	4	8	1	6
Total.....	70	70	70	70	70
<i>Percent</i>					
Combined closing inventory as a percentage of combined annual sales.....	9.5	10.3	10.3	8.6	9.2

percent of current assets, and in the last 4 years, the largest number of associations had inventories representing 60 percent or more of current assets. The number of associations having 40 to 59 percent of current assets in inventory did not vary more than two associations during the 5 years. At the close of the period, however, fewer associations carried 40 percent and more carried 60 percent or more.

Table 24 shows that inventories at the close of the business years ranged only from 8.6 to 10.3 percent of total sales during the 5 years. Although sales were higher in 1942 and 1943, the ratios of inventories to total sales at the close of the season were somewhat smaller than in the other years. In each of these 2 years, more than half of the associations carried inventories ranging from 5 to 9.9 percent of total sales; and for the group combined, inventories were 8.6 percent of combined sales in 1939 and 9.2 percent in 1943.

Table 25. - Accounts and notes receivable as a percentage of current assets for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

ACCOUNTS AND NOTES RECEIVABLE AS A PERCENTAGE OF CURRENT ASSETS	1939	1940	1941	1942	1943
<i>Number of Associations</i>					
Less than 10 percent.....	^a 8	^b 11	^b 11	^b 20	^b 22
10 - 19 percent.....	12	13	24	24	27
20 - 29 percent.....	14	19	14	16	14
30 percent or more.....	36	27	21	10	7
Total.....	70	70	70	70	70
<i>Percent</i>					
Combined accounts and notes receivable as a percentage of combined current assets	30.9	27.3	22.1	17.7	14.5

^a2 associations had no accounts and notes receivable.

^b1 association had no accounts and notes receivable.

As was shown in table 20, accounts and notes receivable were smaller in 1942 and 1943 than in the first 3 years. This reflects the increasing effectiveness of restricted credit policies. Table 25 shows that in 1939 and 1940 the largest number of associations had 30 percent or more of current assets in accounts and notes receivable, and in each of the last 3 years the largest number had accounts and notes receivable ranging from 10 to 19 percent of current assets.

For the group as a whole, the relation of accounts and notes receivable at the close of the season to sales during the year declined from 5.5 percent in 1939 to 2.2 percent in 1943, although in each of the 5 years the largest number of associations maintained a relation of 2 to 5.9 percent of total sales. (Table 26.) As was shown in other parts of the text, sales had increased more than two-fold, whereas accounts and notes receivable had declined slightly by the end of the 5 years.

Table 26. - Accounts and notes receivable as a percentage of sales for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

ACCOUNTS AND NOTES RECEIVABLE AS A PERCENTAGE OF SALES	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than 2 percent.....	^a 12	^b 10	^b 16	^b 28	^b 31
2 - 5.9 percent.....	33	37	37	34	36
6 percent or more.....	25	23	17	8	3
Total.....	70	70	70	70	70
	<i>Percent</i>				
Combined accounts and notes receivable as a percentage of combined sales.....	5.5	5.1	3.9	2.8	2.2

^a2 associations had no accounts and notes receivable.

^b1 association had no accounts and notes receivable.

Table 27. - Ratio of current assets to current liabilities for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

RATIO OF CURRENT ASSETS TO CURRENT LIABILITIES	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Current assets less than 2 times current liabilities.....	18	20	19	10	9
Current assets 2 to 4.9 times current liabilities.....	36	31	28	20	28
Current assets 5 or more times current liabilities.....	16	19	23	40	33
Total.....	70	70	70	70	70
Ratio of combined current assets to combined current liabilities	3 to 1	2.9 to 1	3.1 to 1	5 to 1	4.7 to 1

The high ratio of current assets to current liabilities shown in table 27 indicates that the associations maintained a good liquid position during the period. In 1939, 36 associations, or 51 percent, had current assets ranging from 2 to 4.9 times current liabilities. This ratio improved and in 1943 the largest number of associations - which represented 47 percent - had current assets 5 or more times current liabilities.

The ratios of the combined current assets to combined current liabilities of the 70 associations at the close of the business season were: 3 to 1 in 1939, 2.9 to 1 in 1940, 3.1 to 1 in 1941, 5 to 1 in 1942, and 4.7 to 1 in 1943.

LIABILITIES AND NET WORTH

Some of the relationships of liabilities to different items of assets have already been discussed. Of particular significance is the relationship of current liabilities to cash and receivables, since the latter two are considered the quick assets. Table 20 showed that at the close of each year current liabilities were more than offset by cash and receivables combined. Moreover, in 1942 cash alone was greater than current liabilities. The ratios of cash and receivables combined to current liabilities were: 1939, 1.28 to 1; 1940, 1.14 to 1; 1941, 1.10 to 1; 1942, 1.90 to 1; 1943, 1.61 to 1.

The decline in the amount of liabilities per dollar of net worth indicates that the associations decreased their dependence on borrowed capital. In 1939, 46 associations, or 66 percent, had 30 cents or more of liabilities for each dollar of net worth. In 1943, 49 associations, or 70 percent, had less than 30 cents for each dollar. The combined statements of the 70 associations show a significant decline in liabilities per dollar of net worth from 42 cents in 1939 to 19 cents in 1943. (Table 28.)

Table 28. - Amount of total liabilities per dollar of net worth for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

TOTAL LIABILITIES PER DOLLAR OF NET WORTH	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than 30 cents.....	24	25	21	46	49
30 cents or more.....	46	45	49	24	21
Total.....	70	70	70	70	70
	<i>Cents</i>				
Combined total liabilities per dollar of combined net worth.....	42	44	39	23	19

Further analysis indicates that the investments in property were financed primarily from capital furnished by the members. At the close of each of the business years, the largest number of associations had \$3 or more in net worth for each dollar invested in fixed assets - ranging from 38 associations in 1939 to 57 associations in 1943. For the 70 associations, the amount of net worth for each dollar invested in fixed assets was: \$3.01 in 1939, \$2.98 in 1940, \$3.45 in 1941, \$4.15 in 1942, and \$4.60 in 1943.

Table 29. - Amount of net worth per dollar of fixed assets for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43

NET WORTH PER DOLLAR OF FIXED ASSETS	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Less than \$3.....	32	32	28	15	13
\$3 or more.....	38	38	42	55	57
Total.....	70	70	70	70	70
Combined net worth per dollar of combined fixed assets.....	\$3.01	\$2.98	\$3.45	\$4.15	\$4.60

Table 30. - Percentage of net worth shown in capital stock and in surplus reserve and undistributed savings for 70 Indiana farm bureau associations, close of fiscal years ended 1939-43

ITEM	1939	1940	1941	1942	1943
	<i>Percent</i>				
Outstanding capital stock and stock credits.....	76	75	69	66	66
Surplus reserve and undis- tributed savings.....	24	25	31	34	34

Table 30 shows the proportions of members equity or net worth at close of each of the 5 years that the 70 associations had put into capital stock and stock credits and into surplus reserve including undistributed savings.

As was shown in table 21, the average capital stock of the 70 associations was \$26,102 in 1939 and gradually increased to \$54,211 in 1943. Of this amount, stock credits made up 17 percent in 1939 and 12 percent in 1943.

At the close of the business season, the average surplus reserve and undistributed savings ranged from \$8,321 in 1939 to \$27,733 in 1943. In 1939 and 1940, half of the associations had accumulated surplus reserve and undistributed savings ranging from \$5,000 to \$14,999 per association, and by the close of 1943 almost half of the associations had built their reserves with undistributed savings up to \$25,000 or more per association. (Table 31.)

Table 31. - Distribution of 70 Indiana farm bureau cooperative associations according to the amount of surplus reserve and undistributed savings, close of fiscal years ended 1939-43

SURPLUS RESERVE AND UNDISTRIBUTED SAVINGS	1939	1940	1941	1942	1943
	<i>Number of Associations</i>				
Deficit.....	7	7	2	3	1
Surplus reserve and undistributed savings:					
Less than \$5,000.....	17	13	8	2	2
\$5,000 - \$14,999.....	35	35	31	21	16
\$15,000 - \$24,999.....	7	10	20	24	17
\$25,000 or more.....	4	5	9	20	34
Total.....	70	70	70	70	70
Average surplus reserve and undistributed savings....	\$8,321	\$9,903	\$14,814	\$21,180	\$27,733

WORKING CAPITAL

The excess of current assets over current liabilities represents the amount of current assets which is free for current operations, and may be considered the working capital. The average working capital of the 70 associations at the close of the fiscal year was:

1939	1940	1941	1942	1943
\$19,069	\$21,125	\$25,877	\$35,591	\$44,618

These figures show a gradual increase in the amount available for current operations. Working capital in 1943 had increased 134 percent over 1939.

Table 32. - Amount of working capital per dollar of total assets for 70 Indiana farm bureau cooperative associations, close of fiscal years ended 1939-43^a

WORKING CAPITAL PER DOLLAR OF TOTAL ASSETS	1939	1940	1941	1942	1943
	<i>Percent of Associations</i>				
Less than 25 cents.....	^b 27.1	^c 32.9	^d 31.4	^e 17.2	11.4
25 - 49 cents.....	47.2	44.3	48.6	47.1	52.9
50 - 74 cents.....	25.7	22.8	20.0	35.7	35.7
Total.....	100.0	100.0	100.0	100.0	100.0
	<i>Cents</i>				
Average working capital per dollar of total assets....	39	37	38	46	46

^aWorking capital - excess of current assets over current liabilities.

^b7 percent of the associations had no working capital.

^c6 percent of the associations had no working capital.

^d4 percent of the associations had no working capital.

^e1 percent of the associations had no working capital.

Year-to-year changes in the amount of working capital for each dollar of total assets at the close of the season is shown in table 32. During the 5 years, 44 to 53 percent of the associations had working capital ranging from 25 to 49 cents per dollar of total assets. In 1939, the 70 associations had an average working capital of 39 cents for each dollar of total assets. The amount was slightly lower in 1940 and 1941, but increased to 46 cents in 1942 and 1943.

Since inventories made up 54 to 59 percent of current assets at the close of the business years, the working capital was largely in the form of inventories.

SIGNIFICANT FACTS

Significant growth and development of 70 Indiana county farm bureau cooperative associations, during the war period, 1939 to 1943, inclusive, is apparent in the findings of this study. The 70 associations were selected from the membership of 86 associations federated in the Indiana Farm Bureau Cooperative Association, since comparable information for this number was available for the 5-year period.

It is believed that these associations are broadly representative of all farmers cooperatives operating in Indiana. They are widely scattered over the State and provide county-wide service to the farmers. The trend of their business roughly parallels that of the growth of agriculture in Indiana. In the 5 years covered by the study, the total sales volume of these associations increased 127 percent, whereas the annual net income per farm in Indiana rose 234 percent.

In 1943, 90 percent of the associations had increased their volumes by 50 percent or more, 64 percent by 100 percent or more, and 17 percent by 200 percent or more. The total business volume of the 70 associations rose from \$11,316,157 in 1939 to \$25,711,996 in 1943, or 127 percent. Average sales increased from \$161,659 in 1939 to \$367,314 in 1943. Although smaller margins were taken in the latter part of the 5-year period, the control of operating expenses with increased nonoperating income resulted in an increase in average net savings from \$5,241 in 1939 to \$22,878 in 1943, or 336 percent.

Information on itemized sales was available for 63 associations. Total sales of the 63 associations amounted to \$10,331,634 in 1939 and increased to \$23,261,794 in 1943. In 1939, petroleum products made up 34 percent of total sales; general farm supplies, 51 percent; and farm products marketed, 15 percent. In 1943, petroleum products made up 21 percent of total sales; general farm supplies, 54 percent; and farm products marketed, 25 percent.

Petroleum products increased from \$3,552,761 in 1939 to \$4,887,813 in 1943, or 38 percent; general farm supplies from \$5,242,177 in 1939 to \$12,585,749 in 1943, or 140 percent; and farm products marketed from \$1,536,696 in 1939 to \$5,788,232 in 1943, or 277 percent.

Gasoline was the most important item of petroleum products, making up approximately 70 percent for each of the 5 years. The associations distributed 2.5 million dollars worth of gasoline to their patrons in 1939 and 3.5 million in 1943.

Feed and flour contributed the largest amount of the volume of general farm supplies, making up 40 percent in 1939 and 50 percent in 1943. Sales of feed and flour increased from \$2,108,855 in 1939 to \$6,317,924 in 1943. Fertilizer contributed 14 percent in 1939 but declined to 12.9 percent in 1943, however, the sales volume rose from \$735,766 in 1939 to \$1,621,891 in 1943. Coal made up approximately 9 percent during the 5 years - dollar volume increased from \$455,086 in 1939 to \$1,048,932 in 1943. Building supplies increased from \$390,070 in 1939 to \$1,108,330 in 1943. Other large items of general farm supplies were distributed in lesser amounts, and each showed year-to-year increases except electrical equipment, the sales of which decreased as a result of war priorities.

Of the 63 associations, 21 handled farm products on a purchase-and-sale basis amounting to \$1,536,696 in 1939, and 35 handled a total of \$5,788,232 in 1943. Farm products were handled by other associations on a commission basis and the income is included in service income. Wheat, corn, and farm produce made up 78 percent of farm products sold in 1939; and wheat, corn, and soybeans made up 80 percent in 1943.

On the basis of operations per dollar of sales, cost of sales rose from 83 cents in 1939 to 86 cents in 1943; gross income from operations decreased from 19 cents to 16 cents; expenses decreased from 16 cents to 12 cents; nonoperating income increased from 0.2 cent to 2 cents; and net savings increased from 3 cents to 6 cents.

Findings in the analysis of the financial statements were equally significant. Total assets of the 70 associations rose from \$3,431,736 in 1939 to \$6,845,135 in 1943, or 99 percent. Of the total in 1939, current assets made up 59 percent; fixed assets, 23 percent; and other assets, 18 percent. In 1943, current assets made up 58 percent; fixed assets, 18 percent; and other assets, 24 percent.

Current assets increased from \$2,004,019 in 1939 to \$3,964,048 in 1943, or 98 percent. At the close of the business seasons, inventory accounted for from 54 to 59 percent of current assets, and further analysis shows that inventory ranged from 8.6 percent to 10.3 percent of total annual sales.

The increasing effectiveness of a restricted credit policy was reflected in the decrease of accounts and notes receivable from 5.5 percent of current assets in 1939 to 2.2 percent in 1943.

Total liabilities went from \$1,022,154 in 1939 to \$1,109,025 in 1943, or only 8 percent - current liabilities made up 65 percent in 1939 and 76 percent in 1943. Current liabilities were more than offset by cash and receivables in any 1 year.

The high ratio of current assets to current liabilities shows that as a group the associations maintained a good liquid position during the period. The ratios of total current assets to total current liabilities at the close of the business seasons for the 70 associations were: 3 to 1 in 1939, 2.9 to 1 in 1940, 3.1 to 1 in 1941, 5 to 1 in 1942, and 4.7 to 1 in 1943.

Net worth increased from \$2,409,582 in 1939 to \$5,736,110 in 1943, or 138 percent. In 1939, capital stock made up 76 percent, and surplus reserve and undistributed savings made up 24 percent. In 1943, capital stock made up 66 percent and surplus reserve and undistributed savings 34 percent.

The decline in the amount of liabilities per dollar of net worth from 42 cents in 1939 to 19 cents in 1943 indicates that the associations decreased their dependence on borrowed capital.

Further analysis shows that the investments in property were financed primarily from capital furnished by the members. At the close of 1939, the 70 associations had \$3 in net worth for each dollar invested in fixed assets, and in 1943 this amount had increased to \$4.60 for each dollar.

At the close of 1943, the 70 associations had accumulated \$1,941,363 in surplus reserve and undistributed savings as compared with \$582,430 in 1939 - an increase of 233 percent.

In each of the 5 years of operation the associations had allowed themselves sufficient working capital. At the close of the business season, the average working capital per association was \$19,069 in 1939 and increased to \$44,618 in 1943, or 134 percent. At the close of the 1939 season the working capital amounted to 39 cents for each dollar of total assets and in 1940 and 1941 it was slightly lower, but increased to 46 cents in 1942 and 1943.

During the period studied, these associations had grown materially in volume of service, while greatly improving their financial strength, thus insuring their ability to meet uncertainties that may lie ahead in the period of postwar adjustment.

